

September 6th.

Mr. LEA, President, in the Chair.

Twenty-nine members present.

A paper was presented for publication in the Proceedings entitled "Catalogue of the Invertebrate Fossils of the Cretaceous Formation of the United States, by Wm. M. Gabb," and was referred to a Committee.

Mr. Lesley read the following extracts from a letter he had received from Mr. Edward A. Spring, Eagleswood, N. J., July 26th, 1859 :

I was over on the South Amboy shore with a friend, walking in a swampy wood, where a dyke was made, some three feet wide, when we discovered in the middle of this ditch a large black spider making very queer motions for a spider, and on examination it proved that he had CAUGHT A FISH.

He was biting the fish, just on the forward side of the dorsal fin with a deadly gripe, and the poor fish was swimming round and round slowly, or twisting its body as if in pain. The head of its black enemy was sometimes almost pulled under water, but never entirely, for the fish did not seem to have enough strength, but moved its fins as if exhausted, and often rested. At last it swam under a floating leaf at the shore, and appeared to be trying, by going under that, to scrape off the spider, but without effect. They then got close to the bank, when suddenly the long black legs of the spider came up out of the water where they had possibly been embracing the fish, (I have seen spiders seize flies with all their legs at once) reached out behind and fastened upon the irregularities of the side of the ditch. The spider then commenced tugging to get his prize up the bank. My friend stayed to watch them while I went to the nearest house for a wide mouthed bottle. During the six or eight minutes that I was away, the spider had drawn the fish entirely out of the water, when they had both fallen in again, the bank being nearly perpendicular. There had been a great struggle—and now on my return, the fish was already hoisted head first more than half his length out on the land. The fish was very much exhausted, hardly making any movement, and the spider had evidently gained the victory, and was slowly and steadily tugging him up. He had not once quitted his hold during the quarter to half an hour that we had watched them. He held, with his head toward the fish's tail, and pulled him up at an angle of 45° by stepping backwards. How long they had been there or how far they had come we cannot tell. We saw no web anywhere about.

The time would not permit a longer stay, so we reluctantly bottled the pair. I thought I had missed dipping up the spider, and looked along the bank, but on turning to the bottle he was there. The fish was swimming weakly at the bottom of the water that I had dipped in, and the spider standing sentinel over him on the surface, turning when he turned, and watching every motion. We stopped the mouth of the bottle so that the spider could not escape, and went to see the fine place of the late Mr. Stevens above on the hill. Returning in about three hours, we found, to our disappointment, the spider dead at the bottom, but the fish was alive. He lived for twenty-four hours. The spider was $\frac{3}{4}$ of an inch long, and weighed 14 grains; the fish was $3\frac{1}{4}$ inches long and weighed 66 grains.

September 20th.

Mr. LEA, President, in the Chair.

Thirty-one members present.

1859.]

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The following papers were presented for publication in the Proceedings :

"Contributions to American Lepidopterology, by Brackenridge Clemens, M. D."

"Description of a deformed fragmentary Human Skull found in an ancient quarry cave at Jerusalem ; with an attempt to determine by its configuration alone the ethnical Type to which it belongs, by J. Aitken Meigs, M. D."

September 27th.

Vice-President BRIDGES in the Chair.

Thirty-eight members present.

The Report of the Biological Department for the present month was read.

On report of Committees of the Biological Department, the paper entitled "On the seat of the vesicating principle of *Lytta vittata*, by Joseph Leidy, M. D.," was recommended for publication in a medical journal, and one entitled "Abstract of the most important points of Researches on the Minute Anatomy of the Liver, by H. D. Schmidt," was ordered to be published in the Proceedings.

On report of the Committee, the paper entitled "Catalogue of the Invertebrate Fossils of the Cretaceous formation of the United States, by Wm. M. Gabb," was ordered to be published with the Proceedings.

The following were ordered to be published in the Proceedings :

Contributions to American Lepidopterology.

BY BRACKENRIDGE CLEMENS.

TINEINA.

It is the intention of the writer to confine these contributions to Lepidopterology, to the description of species which are new to entomological history, or which are believed to be new. This plan dispenses with the necessity of general remarks on systematic arrangement, since but few species at a time will be given as the genera to which they belong are determined, or ascertained to be undescribed. Indeed I have nothing of value to add to what has been recently advanced elsewhere, nor has any question arisen in my studies of the present group, that would induce me to retract or doubt the accuracy of the views advocated, respecting the nature of a family. I do not wish, however, to be understood to assert that the group *Tineina* is synonymous with a family. I do not by any means entertain the belief that it includes only one, and yet I can perceive but little in the majority of the groups collected under this term, other than artificial assemblages of genera, under a family termination.

I find in the pterogostic characters of the perfect insect a similitude of structure which enables the investigator, with but little difficulty, to refer it to the appropriate principal group formed on this basis. The individuals, thus assembled together agree not only in *general structure*, but in embryonic histories and in larval forms, so far as my own observation and study of other fauna than our own has enabled me to determine the question. The agreement in embryonic form extends into the group *Tortricina*, and the relationship in the imago, is likewise expressed to a certain degree in the neurulation of the wings of this latter group, as compared with that of the *Tineina*. These characters, however, are sufficiently marked in each, and can scarcely be mistaken in either instance

[Sept.